

In the claims:

Claims 1-4 (canceled)

5. (previously presented) A printer comprising:

a printing device;

a printer controller for controlling said printing device, said printer controller including means for interpreting responsive to each line of source language to translate into machine language and then execute and wherein a figure to be printed is divided into graphics rendering primitives and means for rendering where each and every pixel in the primitive is a function of its position the primitive, said means for rendering includes a lookup table that includes opcode values over all values of indexes wherein the index into the lookup table is calculated for every pixel using a base value and a gradient in both x and y directions and said means for providing opcode values for all values of indexes includes an opcoder and means for determining maximum and minimum values of index of normal table area of a lookup table, and expanding the lookup table above and below said maximum and minimum values of said index by replicating the highest value if the index is above the normal table value and replicating the lowest value if the index is below the normal table area and removing core loop checks.

6. (previously presented) A raster image processor for preparing data for raster output comprising:

an interpreter for translating source language into machine language and dividing figure drawn into primitives; and

a rendering subsystem including a means for generating an index for each pixel in each of said pixels, said rendering subsystem including means for determining maximum and minimum values of index of normal table area of a lookup table and rendering an expanded lookup table for the entire range of index values and removing core loop checks; said rendering lookup table of said rendering subsystem has its highest and lowest values replicated above and below the normal table indexes so as to provide lookup table values for the entire range of indexes.

7. (canceled)

8. (new) In a system for rendering pixels having an opcode having two boundary checks for the index to avoid accessing outside normal lookup table area of a lookup table, the improvement for reducing the time for rendering pixels comprising:

means for determining maximum and minimum values of said index of said normal table area of said lookup table,
 means for expanding the lookup table above and below said maximum and minimum values of said index by replicating the highest value if the index is above the normal table area and replicating the lowest value if the index is below the normal table area and
 means for removing said boundary checks.

9. (new) A method for reducing the time for rendering pixels in a system having an opcode having two boundary checks for the index to avoid accessing outside normal lookup table area of a lookup table comprising the steps of:

determining maximum and minimum values of said index of said normal lookup table area of said lookup table,
expanding the lookup table above and below said maximum and minimum values of said index by replicating the highest value if the index is above the normal lookup table area and replicating the lowest value if the index is below the normal lookup table area and
removing said boundary checks.